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FAMILY LYCEUM.

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VOLCANOES.

STROMBOLI.

[Concluded from the last Lyceum.]

TRAVELLERS have generally asserted that the volcano of Stromboli has for a long time discharged its fury into the sea, without causing either alarm or injury to the inhabitants of the island. The eruptions, however, fall equally on every side around the volcano; though at this place they only fall into the sea, and in that sense their assertion is well founded.

But the people of Stromboli, and indeed almost all the inhabitants of the Eolian islands, entertain an opinion, equally amusing and paradoxical, by which they explain why that part of the sea which is contiguous to the precipice is never filled up, notwithstanding the immense quantities of stones which have been continually falling into it from time immemorial; where, instead of a peninsula having been formed by those stones, as might naturally have been expected, the sea is generally said to have no bottom. To explain this apparent paradox, these good folks affirm, with the most entire conviction that what they say is true, that the stones of the volcano which fall into the sea are attracted again by the mountain through secret passages; so that there is a constant circulation from the volcano to the sea, and the sea to the volcano.

I did not attempt to controvert their favorite hypothesis, which would have been to no advantage, and to no avail; but I caused that part of the sea to be sounded, and found it a hundred and twenty-four feet deep, which, though that is not a great depth in the Mediterranean, is certainly, in this place, somewhat surprising; as it was rather to be expected that the continual discharge of stones into it should have produced a little hill, which would at last have emerged above the waves.

With respect to the time when this volcano began to exert its activity, and to melt these rocks, we are profoundly ignorant, this being an epocha anterior to all history. We must be contented with the imperfect accounts the ancients have left us of the conflagrations of Stromboli, which did not burst forth in their time, but ages before. Of these accounts I shall proceed to give a concise view, this being the second inquiry it was proposed to make, and it will necessarily be brief, as the notices left us on this subject by the ancients are extremely few.

Eustatius, Solinus, and Pliny, inform us that the flames of Stromboli are less powerful than those of the other islands of Lipari, but that they exceed them in clearness and splendor. These writers, however, were only the copiers of Strabo, or perhaps some abridgment of him, in which he is copied incorrectly. We shall therefore have recourse to that celebrated Grecian geographer himself; who, after having mentioned Lipari and Vulcano, and informed us that Stromboli likewise burns, tells us that the latter island, compared to the others, is inferior to them in the violent eruption of its flames, but that it exceeds them in their brightness.

It is evident, that by 'the others,' Strabo means Vulcano, which was the only one of the Eolian isles, besides Stromboli, in a state of conflagration in his time. When I compare Stromboli with Vulcano, I perceive that even now there is this difference between the two islands, that the flames of the former are much more resplendent and lively than those of the latter; but I cannot say that those of Stromboli are less violent, as the contrary is certainly the fact. We must, however, conclude, that in those ages the eruptions of Vulcano were very strong and frequent, which agrees with the testimony of Diodorus, and that of Agathocles as cited by the Scholiast on Apollonius; the former of whom asserts, that in his time Vulcano and Stromboli vomited great quantities of sand and burning stones; and the latter, that these two islands threw out fire, both by day and night.

There is another circumstance mentioned by the Sicilian historian which deserves notice. This is, that a wind issues from both these islands with a great noise. This in some measure agrees with the observations I made at Stromboli, and the attentive examiner will find it still more applicable to the other island.

Philip Cluverius, in his Sicilia Antiqua, speaking of Stromboli, tells us that its crater is situated at the summit of a mountain, from which it pours forth, both by day and by night, with a horrible noise, bright flames and great quantities of pumice. In one of the plates prefixed to his work, this island is represented with the smoke rising from the summit of the mountain.

Nearly one hundred and seventy-three years have now elapsed since this author travelled in Sicily. Ought we then to conclude, that, at that time, the mouth of the volcano was situated at the summit of the mountain? Had the learned antiquary himself visited the island, I could not have objected to his evidence. But he not only does not say this, but the contrary may be inferred from his own words. It is therefore evident that he saw this volcano only from a distance, and that, consequently, his assertion, that the fiery crater was situated at the summit, is not to be depended on. What he has said of the pumices then thrown out by it, he may have taken on the credit of some of the natives who gave him that information, and who confounded the scoriaceous lavas with pumices; or it may in fact be true, since under the scoriæ and lavas of Stromboli, scattered pumices are found, as I have observed above.

From the authorities above adduced it appears, therefore, that the most ancient accounts of the conflagrations of Stromboli, transmitted to us by history, are prior to the Christian era by about 290 years, the date of the reign of Agathocles, the celebrated tyrant of Syracuse. This volcano burned likewise in the times of Augustus and Tiberius, when Diodorus and Strabo flourished. But after this latter period, a long series of ages succeeds, during which, from want of documents, we are ignorant of the state of Stromboli; and it is not until the seventeenth century, that we again know with certainty that it ejected fire; though it is not improbable that it continued to burn likewise during the times in which we find no mention of it in history: on which supposition, its uninterrupted conflagration, for so great a length of time, must indeed appear astonishing. Yet, though it should have ceased for several ages, we know from various public testimonies, that its continued eruptions cannot have lasted less than two hundred years.

Here our curiosity may naturally be excited by the question: what are the substances which, without diminution, have nourished, during such a number of years, and still continue to feed, these fires? I do not perceive that there is any reason to suppose them different from those which furnish fuel to the intermitting volcanoes, except that their source appears to be inexhaustible.—It is believed, with much reason, that sulphur produces and continues volcanoes; and wherever these mountains burn, we have indisputable proofs of its presence. Still more effectually to explain these conflagrations, petroleum has likewise been called in aid; and, in fact, it has sometimes been found to issue in the neighborhood of a volcano, of which Vesuvius is an example. The clouds of thick black smoke, which frequently rise into the air from the mouths of volcanoes, and the unctuosity and sootiness which are said to be found in the recent scoriæ, seem likewise to be evident indications of some bituminous sublimate.

That Stromboli contains within its deep gulphs and recesses an immense mine of burning sulphur, we can entertain little doubt, when we consider the streams of smoke, of extraordinary whiteness (a color which constantly accompanies sulphureous fumes), that rise on the west side of the island, and the smell of sulphur, not only perceptible from them, but from the large cloud of smoke which overhangs the summit of the mountain. The small pieces of that mineral produced near the apertures whence those fumes arise, are likewise another proof. But of the presence of petroleum, and its effects, I have never perceived the least sign. Besides that no vein of it is found in the island, nor any ever seen swimming on the sea which surrounds Stromboli, as I was assured by the general testimony of the inhabitants, the smell of this bitumen is no where sensible, though naturally it is very acute. I have frequently visited the sources of petroleum, at Monte Zibio, in the territory of Modena, and I could always perceive the smell of their penetrating vapors, at the distance of several hundred paces, before I reached them. I therefore conclude, that these vapors must have been much more sensible at Stromboli, as they would have been much more active, had petroleum actually burned within its gulph. I have likewise examined, with the greatest attention, the scoriæ thrown out by the volcano, and while they were very hot; but I never could perceive that they emitted, either from their surface or within their pores and cavities, the least smell of that bituminous substance, or that they any where exhibited any unctuous humidity.—As I knew that the smoke which exhales from burning petroleum is of a blackish hue, I suspected that the thick and dark column of smoke, which arose to the east of the volcano, might be a sign of its presence; but, on a nearer approach, I perceived that its darkness proceeded from aqueous vapors which were mixed with it, and which, by my continuing a short time in it, rendered my clothes damp and wet.

Shall we then affirm that the fires of Stromboli receive no kind of aliment from this bitumen? Notwithstanding the observations I have stated, I would not venture confidently to deduce such a conclusion; since it is possible that the petroleum may burn under the mountain, at so great a depth that its vapors may not reach to the top, but may be dispersed and consumed by the fire, and the immense mass of liquefied matter, which probably extends from the crater to the lowest roots of the island.

But though we should not admit the existence of this oil within the deep recesses of the mountain, I do not perceive but the sulphur alone may be sufficient for the nourishment of the volcano, when its flame is animated by oxygenous gas, the presence of which, in volcanic abysses, seems undeniable, from the substances they contain proper to generate it, when acted on by the fire.—The long duration without intermission, therefore, of these conflagrations, may be very sufficiently explained by the immense quantities of sulphur, or, to speak more properly, sulphurets of iron which we must necessarily suppose contained in the bowels of the mountain; a supposition rendered the more probable by the prodigious subterranean accumulations of this mineral which have been discovered in various parts of the globe.—[*Gallery of Nature and Art.*

RELIGION OF A BRAMIN.

THERE is but one God, the author, the creator, the governor of the world, almighty, eternal, and incomprehensible.

The sun is not God, though his noblest image. He enlighteneth the world with his brightness; his warmth giveth life to the products of the earth; admire him as the creature, the instrument of God, but worship him not.

To the one who is supreme, most wise, and beneficent, and to him alone, belong worship, adoration, thanksgiving, and praise.

Who hath stretched forth the heavens with his hand; who describeth with his finger the courses of the stars.

Who setteth bounds to the ocean, which it cannot pass, and saith unto the stormy winds—Be still!

Who shaketh the earth, and the nations tremble; who darteth his lightnings, and the wicked are dismayed.

Who calleth forth worlds by the word of his mouth; who smiteth with his arm, and they sink into nothing.

'Oh, reverence the majesty of the Omnipotent; and tempt not his anger, lest thou be destroyed!'

The providence of God is over all his works—he ruleth and directeth with infinite wisdom.

He hath instituted laws for the government of the world; he hath wonderfully varied them in all beings; and each, by his nature, conformeth to his will.

In the depth of his mind he revolveth all knowledge; the secrets of futurity lie open before him.

The thoughts of thy heart are naked to his view; he knoweth thy determinations before they are made.

With respect to his prescience, there is nothing contingent; with respect to his providence, there is nothing accidental.

Wonderful he is in all his ways; his counsels are inscrutable; the manner of his knowledge transcendeth thy conception.

'Pay therefore to his wisdom all honor and veneration; and bow down thyself in humble and submissive obedience to his supreme direction.

The Lord is gracious and beneficent; he hath created the world in mercy and love.

His goodness is conspicuous in all his works; he is the fountain of excellence, the centre of perfection.

The creatures of his hand declare his goodness and all their enjoyments speak his praise; he clotheth them with beauty, he supporteth them with food, he preserveth them with pleasure, from generation to generation.

If we lift up our eyes to the heavens, his glory shineth forth—if we cast them down upon the earth, it is full of his goodness: the hills and the valleys rejoice and sing—fields, rivers and woods resound his praise.

But thee, Oh man! he hath distinguished with peculiar favor, and exalted thy station above all creatures.

He hath endowed thee with reason to maintain thy dominion; he hath fitted thee with language to improve by society; and exalted thy mind with the powers of meditation, to contemplate and adore his inimitable perfections.

And in the laws he hath ordained as the rule of thy life, so kindly hath he suited thy duty to thy nature, that obedience to his precepts is happiness to thyself.

'Oh praise his goodness with songs of thanksgiving, meditate in silence on the wonders of his love! let thy heart overflow with gratitude and acknowledgment—let the language of thy lips speak praise and adoration—let the actions of thy life show thy love to his law.'

The Lord is just and righteous, and will judge the earth with equity and truth.

Hath he established his law in goodness and mercy, and shall he not punish the transgressor thereof?

Oh think not, bold man, because thy punishment is delayed, that the arm of the Lord is weakened; neither flatter thyself with hopes that he winketh at thy doings.

His eye pierceth the secrets of every heart, and remembereth them forever; he respecteth not the persons nor the stations of men.

The high and the low, the rich and the poor, the wise and the ignorant, when their soul hath shaken off the cumbrous shackles of this mortal life, shall equally receive, from the sentence of God, a just and everlasting retribution, according to their works.

Then shall the wicked tremble and be afraid; but the heart of the righteous shall rejoice in his judgments.

'Oh fear the Lord, therefore, all the days of thy life; and walk in the paths which he hath opened before thee. Let Prudence admonish thee—let Temperance restrain—let Justice guide thy hand—Benevolence warm thy heart—and gratitude to Heaven inspire thee with devotion. These shall give thee happiness in thy present state, and bring thee to the mansions of eternal felicity in the paradise of God.—[*Economy of Human Life.*

METHOD.

METHOD is the very hinge of business, and there is no method without punctuality. Punctuality promotes the peace and good temper of a family. The calmness of mind which it produces is another advantage of punctuality. A man without punctuality is always in a hurry: he has no time to speak to you, because he is going elsewhere; and when he gets there he is too late for his business, or he must hurry away to another before he can finish it. Punctuality gives weight to character; such a man has made an appointment; I know he will keep it: and this generates punctuality in those with whom he lives; for like other virtues, it propagates itself. Servants and children must be punctual where the master is so.—Appointments become debts. I have made an appointment with you; I owe you punctuality, and I have no right to throw away your time, even though I might my own.—To be punctual is to do as we would be done by, for who likes to be kept waiting? Punctuality is the best of economy, for what have we that is so precious as time?—Punctuality is part of piety towards God; for of what gift shall we be called to so strict account as of those hours, without which no other gift can be exercised at all?

Facts in Physics.

Gold beaters, by hammering, reduce gold to leaves so thin, that 282,000 must be laid on each other to produce the thickness of an inch. They are so thin, that if formed into a book, 1500 would occupy the space of a single leaf of common paper.

A grain of blue vitriol, or carmine, will tinge a gallon of water, so that in every drop the color may be perceived; and a grain of musk will scent a room for twenty years.

A stone, which on land requires the strength of two men to lift, may be lifted in water by one man.

A ship draws less water by one thirty-fifth in the heavy salt water, than in the water of a river, and a man may support himself more easily in the sea than in a river.

An immense weight may be raised a short distance, by first tightening a dry rope between it and a support, and then wetting the rope. The moisture imbibed into the rope by capillary attraction, causes it to become shorter.

A rod of iron, which, when cold, will pass through a certain opening, when heated expands, and becomes too thick to pass. Thus the tire or rim of a coach wheel, when heated goes on loosely, and when cooled it binds the wheel most tightly.

One pint of water converted into steam, fills a space of nearly 2000 pints, and raises the piston of a steam engine with a force of many thousand pounds. It may afterwards be condensed and reappear as a pint of water.

A cubic inch of lead is forty times heavier than the same bulk of cork. Mercury is nearly fourteen times heavier than the same bulk of water.

Sound travels in water about four times quicker; and in solids from ten to twenty times quicker than in air.

To Weigh Air.

We recently stepped in at the Mechanics' Institute just in time to see this operation by Mr. Steel, formerly considered as impossible, and now a wonder to the uninitiated, and yet nothing is more simple in performing, or easier of explanation. Mr. Steele carefully weighed a thin copper quart bottle and stopper; he then extracted the air from the bottle, with an air pump; and again weighed the bottle, when it was *visibly lighter;* the experiment was again renewed by admitting the air, when the bottle with the air *in it recovered its* equilibrium.

The air pump.—In the course of the lecture this instrument was familiarly explained, and the *simplicity* of the *valve*, very properly enlarged upon; showing that any ordinary mechanic might make an air pump.

A single barelled air pump differs but little from a syringe, in appearance, construction, and use; it consists of a barrel, with a flat circular head, in which is perforated a *small hole;* the inside of this head (which may be unscrewed) and over the hole is bound a slip of oiled silk, forming the valve, by admitting the air to pass in one direction only; a piston rod with a foot, similarly contrived to the head of the barrel, and exactly fitting the barrel, is then worked up and down; the rod of course draws out the air from the barrel, and if the barrel has been previously screwed on to any vessels, as the copper bottle which had a similar valve in its neck, the air will rush out of the bottle, into the barrel, and by the action of the piston will be forced through the valve in the foot of the piston, and as the three valves are similarly formed and open one way, the air of course cannot get back, and in this manner a vacuum or nearly so, can be created, and hence air may be weighed with the greatest simplicity. Any young man who has leisure to attend this Institution, should not neglect such valuable instruction given with so much simplicity.—[*Selected.*

New Chinese Mulberry. Color of Cocoons.

A few weeks ago, a gentleman of my acquaintance brought home with him from Parmentier's, whither he had been on a visit, some beautiful white silk which he showed me, assuring me at the same time, that all silk-worms, fed on the new Chinese mulberry, would produce white silk. I have lately observed, however, in some of the prints, that Dr. *Pascalis* had imported from France, two kinds of silkworms, one producing silk entirely white, and the other kind, silk of a nankeen color. Now I wish to inquire if there may not be some mistake in that matter, and whether it was not Dr. P.'s white silkworms that happened to be fed on the new Chinese mulberry that produced the silk which I saw? AN INQUIRER.

Remarks by the Editor of the American Farmer.—We are disposed to attribute the color of the cocoons above referred to, to some accidental circumstance. We have had cocoons of all colors from the worms of the common sulphur color variety. We have also had worms that uniformly produce white cocoons. There is a small variety cultivated in Connecticut that are uniformly white. From our experience we are led to believe that the food makes no difference as to the color of the cocoons; and indeed it is of little consequence, as the color is confined to the gum, which on being extracted, leaves the silk uniformly white—whatever may have been the color of the cocoon.—[*American Farmer.*

The Palm Tree.

This tree seems particularly intended by Providence for the uncivilized and destitute savage. It affords him a pleasant drink, and, indeed, the common and favorite drink, especially along the coast of Africa. The wine, as the juice is called, is obtained precisely as the juice of the maple is in America for a different purpose; a hole is bored in the trunk of a tree, a spout made of a leaf inserted, and through this the liquor flows into a calabash beneath, which, holding two or three gallons will probably be filled during the day. It soon assumes a milky appearance, and is generally used in that state; if kept longer, it acquires rather a bitter flavor. The palm tree also affords a valuable oil, of which immense quantities have been heretofore taken off by foreigners, particularly by Liverpool traders. The palm wood is an excellent material in building the simple dwellings of the natives.—[*American Farmer.*

Stocking Knitting Machine.

We have been very much pleased with a little machine for knitting stockings shown to us a day or two ago by Mr. John McMullen, of Birmingham, Huntingdon county, Pa. It occupies about a cubic foot, and is operated upon by turning a crank, which requires no more power or skill than a common hand organ, except when necessary to widen or narrow the stocking a stich is dropped or added by the hand. The machine does the work of six expert knitters, and is very simple. It is superior to the stocking loom, as that requires an apprenticeship to learn to work it, and is not calculated for families. The present machine can be worked by any intelligent little girl, after a few minutes instruction, and is not costly—fifteen dollars, including the patent right. The machine we saw is best calculated for knitting wool, but we believe it can be readily adapted to cotton, silk, or linen, at pleasure. There are none of the machines for sale, the proprietor only wishing to sell patent rights, except in Pennsylvania. Any further information may be obtained from Mr. McMullen, whose address is given above.—[*American Farmer.*

Punctuality of Gen. Washington.

When General Washington assigned to meet Congress at noon, he never failed to be passing the door of the hall while the clock was striking twelve. Whether his guests were present, or not, he always dined at four. Not unfrequently new members of Congress, who were invited to dine with him, delayed until dinner was half over; and he would then remark, 'Gentlemen, we are punctual here. My cook never asks whether the company has arrived, but whether the hour has.' When he visited Boston, in 1789, he appointed 8 o'clock, A. M., as the hour when he should set out for Salem; and while the Old South clock was striking eight, he was mounting his horse. The company of cavalry which volunteered to escort him, were parading in Tremont-street after his departure; and it was not until the General reached Charles River bridge that they overtook him. On the arrival of the corps, the General, with perfect good nature, said, 'Major ——, I thought you had been too long in my family, not to know when it was eight o'clock.' Captain Pease, the father of the stage establishment in the United States, had a beautiful pair of horses, which he wished to dispose of to the General, whom he knew to be an excellent judge of horses. The General appointed five o'clock in the morning to examine them. But the Captain did not arrive with the horses until a quarter past 5, when he was told by the groom that the General was there at five, and was then fulfilling other engagements. Pease, much mortified, was obliged to wait a week for another opportunity, merely for delaying the first quarter of an hour.—[*Selected.*

Moral Principle secures Reputation.

Recently we gave an extract from the address of Rev. Alva Woods, President of Alabama University, to the Students at Commencement. We now present other passages, valuable not only to youth, but to all of every age.

Young Gentlemen,—In all your literary pursuits *have regard to the moral state of your hearts.* On this your success greatly depends.

If you pursue knowledge, merely to feed your vanity, and to enable you to display yourselves, depend upon it, your knowledge will be superficial and worthless. It will not stand the ordeal through which it must pass;—and you will inevitably sink to the level of those who are equally superficial and vain with yourselves. But if you pursue knowledge from a love of it, you will plunge deep into the golden mine, you will follow every rich vein wherever it may lead you, and bring forth its treasures to the light of day. Then your knowledge, like the solid mountain ore, will be the purer for passing the fiery furnace.

Again, if in the pursuit of knowledge, you make human applause your polar star, it will lead you far astray from the paths of rectitude, and from the way of eternal life.

With such a dancing meteor shedding over you its disastrous twilight, you will have no clear rule of action; no steady motive to persevering effort. Your happiness and your misery will be the sport of chance. You will be unduly elated by that which is no virtue; and unduly depressed by that which is no crime.

But if, in your literary pursuits, and in all the pursuits of your life, you make the approbation of your God your constant aim, you build your happiness upon a solid foundation. You are not disturbed by every passing breath of wind. Amidst all the tempests and tornadoes of life, you possess the calmness and tranquility of mind which are essential to the successful prosecution of your studies. Through the darkest hours of adversity, and through the noon-day splendors of prosperity, you can hold on the even tenor of your way. With the good man, you can fasten your hand upon the skies, and bid earth roll, nor feel her idle whirl.

Finally, young gentlemen, with all your gettings *get moral worth.* In valuing your various acquisitions, place the highest estimate upon your moral attainments. These are attainments whose value will endure when the triumphs of intellect shall be forgotten, and when the splendors of genius shall have passed away. When the intellectual might of Byron and the prowess of Napoleon shall be buried in oblivion, the piety of a Baxter and of a Doddridge will continue to be the admiration of mankind.

Though you were to surpass Bacon or Boyle, in a knowledge of the sciences, or Porson or Parr in a knowledge of the ancient languages, yet without moral principle, you would not merit the esteem of your fellow men; and, what is of infinitely greater consequence, you would not enjoy the favor of your Maker. If destitute of moral character, though you had learned every word in every language, and had mastered the whole circle of the sciences, you would not have taken the first step in the road to true fame, nor have laid the first stone in the fabric of your happiness. Let me entreat you then, young gentlemen, above all things to value character. Part with every thing else, but hold fast to your integrity. Watch, with the vigilance of a vestal virgin, watch, night and day, the lamp of your virtue.—Let not the first stain ever rest upon your fair name. You will then possess a peace of mind, which this world can neither give nor take away. You will through life shed around you the light of a virtuous example—and when you sleep in death, your memories will be cherished by the wise and the good.—[*Episcopal Watchman.*

The Golden Rule.

We argue the obligation of this commandment, from the fact that it is the present and will be the future test of our Christianity. What is the essence of the gospel? Love. What is the practice of the gospel? Love. What is the ultimate object of the gospel? Love. What brought a Saviour down to earth? What unites God to man, and man to God, and fills heaven's high courts with sounding praise? Again we answer, Love. We may make great professions of piety, we may fancy high flights of spirituality, we may defend with courage and ability the doctrines of a particular creed, or the interests of a sect, or the forms of discipline; but rest assured if we be destitute of love, it will all avail us nothing. 'If a man say, I love God, and hate his brother, he is a liar, for he that loveth not his brother whom he has seen, how can he love God whom he hath not seen?' 'He that loveth not, knoweth not God, for God is love.' 'If any have not the spirit of Christ, he is none of his.' But what is the principal fruit of the spirit witnessing it to God and man? We answer, Love. Thus thought the apostle: 'We know that we have passed from death unto life because we love the brethren.' 'He that loveth not his brother, abideth in death.'

Would to God that the whole Christian world remembered these great gospel principles. Then assured I am, that instead of wasting their energies in useless and unprofitable controvercies, they would throw aside the weapons of polemic warfare, rally around the Redeemer's standard, and unite heart and hand against the common enemy.—Never will Satan's kingdom totter, nor antichrist be overthrown, until Almighty love unite the divided church in one general attack. Hasten it, O Lord, in thine own good time. O what a triumphant day will that be, when the *Holy Fire* shall baptize the whole Christian church! Selfishness and bigotry shall go to their own place; infidelity confounded, shall confess, 'see how these Christians love one another'; and the great God of love shall reign over his everlasting kingdom amidst the ceaseless praise of a grateful universe.—[*Cookman's Address.*

Geological Course of Cholera.

Mr. Boubee has made some researches into the geology of the countries through which the Cholera has passed, from which he remarks, that this epidemic has spread most speedily, and with its greatest intensity, through those districts where the tertiary and alluvial earths are the most extensive, whilst it appears to have been propagated with great difficulty, to have lost its intensity, and even to have been extinguished in those parts where the older and particularly the primordial formations predominate.—The coincidence of the course of the cholera with particular geological districts, agrees with the observation pretty well established, that the circumstance of humidity and evaporation favor the development of the disease. In fact tertiary and alluvial earths have, to a remarkable degree, the property of imbibing water, which being again yielded by a prolonged evaporation, produces a humidity of the atmosphere entirely dependent on the nature of the soil. The older formations, on the contrary, compose ordinarily compact rocks, which being impenetrable, can neither absorb moisture nor present it to the atmosphere by evaporation.—Sometimes the old formations and volcanic deposition, present rocks that are friable, or decomposed, in particular places, in which cases they will resemble the more recent ones in absorbing and affording moisture, and this circumstance may explain some of the exceptions to the general rule of the cholera adhering in its progress to the modern formations.—[*Jour. du Chimie Med.*

Doing Good.

'Instead of showing our love to our country by engaging eagerly in the strife of parties, let us choose to signalize it rather by beneficence, and by an exemplary discharge of the duties of private life, under the persuasion that man, in the final issue of things, will be seen to have been the best patriot, who is the best Christian. He who diffuses the most happiness, and mitigates the most distress within his own circle, is undoubtedly the best friend to his country and the world, since nothing more is necessary than for all men to imitate his conduct, to make the greatest part of the misery of the world cease in a moment. While the passion then of some is to *shine*, of some to *govern*, and of others to *accumulate*, let one great passion alone inflame our breasts, the passion which reason ratifies, which conscience approves, which heaven inspires—that of being and doing good.'—[*Rob. Hall.*

Common Schools of New York.

From the annual report of the Superintendent of Common Schools, recently made to the Assembly of New York, the following interesting items of information are gleaned.

There are in the State 9600 organized school districts, of which 8941 have made their annual reports according to the statute, which requires the trustees to furnish a census of the children over 5 and under 16 years of age who reside in their respective districts on the last day of December in each year; and also the number of children taught in each district school during the year ending on that day.

In the districts from which returns were received, there were on the last day of December, 508,878 children between 5 and 16 years of age, of which number 494,956 re-

ceived instruction in the common schools of the State. These schools were kept open for the reception of pupils an average period of eight out of the twelve months.

The productive capital of the School Fund belonging to the State, now amounts to $1,735,175 28. The revenue from which is divided among the districts, and is estimated for the present year at $101,350.—This fund is constantly increasing from the sale of school fund lands and other sources.

Taking the average between the whole number of districts organized, [96,000] and the number from which reports were received the last year, [8941] and it will give 9270 as the probable number of schools in operation.

The sum annually expended for the support of these schools is $1,125,162.

There are 55 organized counties, and 811 towns and wards in the state.—[*Selected.*

GEOLOGY.

Geology is a modern science. It is but little more than a quarter of a century since it received its existence, especially in our own country. Before that, it was neither understood nor mentioned in our highest institutions of learning. Our most learned professors possessed no practical knowledge of this subject, nor did our country contain any source from which it could be obtained. They were unable to recognise or name the most common mineral in the streets. Indeed most of the knowledge in Europe upon this subject, was drawn from conjecture, rather than facts.

Within a few years past, however, Geology has made greater progress than was ever made by any other science in the same length of time. From being wholly unknown in our colleges, it has become a familiar and delightful subject in Infant Schools. Thousands of children under ten years of age, are now better practical Geologists, than any individual who could be found in the country thirty years ago. They have not collected their knowledge from their school-rooms or their books, but from actual observation, and examination. They are acquainted with a certain rock or mineral from seeing it, and know its situation, by breaking it from the mass to which it was attached. Their school-rooms and their parlors bear ineffable testimony both of their knowledge and their industry. Their countenances testify that their collections are the price of blows upon the rocks, rather than upon their backs. Stripes did not compel them to obtain their knowledge, but their knowledge induced them to put on the stripes. Their exercises to obtain it were permitted, not compelled. Their subject is understood rather than committed, known rather than imagined.

The progress of this subject has not only been unparalleled as a science, but its application to Agriculture, to Civil Engineering, and to many of the arts, has already added to the wealth of our country to a vast amount. It has brought to view some of the finest specimens of marble upon the earth, which had been used by farmers for common enclosures for one hundred and fifty years without being known. It has discovered valuable quarries of building materials, within a few rods of walls which were brought from a distance of as many miles. It has discovered the material from which coperas is made, and led to the art of manufacturing it in such perfection, and at so cheap a rate, as to put an end to the importation of that article so indispensable, and so extensively used in the arts. It has brought to view inexhaustible deposits of the material for the manufactory of the beautiful pigment under the name of chrome yellow, and has reduced the price of that useful substance, from sixteen dollars to fifty cents a pound. It has led to the establishment of a manufactory of epsom salts, where seven or eight hundred tons are made in a year, and of a better quality than can be procured from any establishment across the Atlantic. The numerous and abundant sources of industry and of wealth which it has opened to our country, have increased the treasures of wealth, no less than those of knowledge; the lovers of science and of filthy lucre, have in one instance been gratified by drinking at the same fountain.

If there are yet those who need to ask what is the object of this practical, interesting, and sublime science, they can be informed that it means a *description of the earth;* and is hence nearly allied to geography. Both sciences have not, however, the same province. They do not describe the earth in the same points. Geography not only describes the great divisions and natural features of the earth, but the political and civil divisions, together with the changes and improvements made upon its surface by the hands of men. It not only gives an account of oceans, continents, islands and mountains, but of towns; republics, kingdoms and empires.

It is not the object of Geology to give the number, names, or situation of continents, islands, or mountains, but of the ingredients of which they are composed, and of the position and arrangement in which they are placed. It takes no notice of the changes which have been produced upon the earth by the industry or the ravages of men, but describes the more sublime changes it has suffered, by the agency of earthquakes and volcanoes; and by the gradual and irresistible hand of time.

The object of Geology is to give us a history, not of the inhabitants which have risen and fallen upon the earth, but of the earth itself. It describes its original formation and present structure, with the gradual and tremendous changes it has undergone, since it came from the hand of its Maker.

It must be acknowledged that our means of information upon this subject are comparatively scanty. Neither history, nor the present appearances of the earth, informs us with any degree of minuteness, what was its state, when 'it was without form and void,' or how great or general were its changes, when the 'windows of heaven opened, and the fountains of the great deep broken up.' Nor can we penetrate beyond a few feet into the bowels of the earth, to ascertain what are its hidden treasures, or the order in which they are stored. Neither the ledges of mountains, the channels of rivers, ravines, caves, wells or any other excavation, either natural or artificial, give us any opportunity to examine the materials, structure or arrangement of our globe, but a few feet below its surface.

Although most of the incidents in the history of our planet, which curiosity, ever upon the alert, would fain unfold, are surrounded and deeply buried in the gloom of ignorance, a few of these incidents are still within our reach, and are too interesting and too important to be withheld from any one who has a heart to feel, or a mind to perceive. A few facts, which can be well established, upon a subject so important as the creation and history of a planet, and of that on which we ourselves are placed, though but a speck in creation, can hardly fail to light up the curiosity of any mind, which has a spark remaining.

State Agricultural School.

On the 18th inst. in the Senate of this state, Mr. Sudam, from the select committee of eight, to whom was referred the memorial of the State Agricultural Society, reported in favor of the establishment of a State Agricultural School. The report was accompanied by a bill, the material provisions of which are stated in the Albany Argus to be as follows:

1. The Comptroller to issue certificates of stock to the amount of $100,000, bearing an interest of 5 per cent, and redeemable in 20 years, to be sold at public auction in the city of New York, to the highest bidder, the proceeds to be applied to the establishment of the school.

2. Three Commissioners to be appointed by the Governor, to purchase a farm, and contract for the erection of suitable buildings for a school sufficient for the accommodation of 200 pupils, the officers of the institution, and servants for the farm.

3, The Governor and Senate to appoint seven Trustees to manage the concerns of the institution, who shall appoint a principal, teachers, and overseers, and employ the necessary laborers and assistants, and to prescribe, with the advice of the principal, the police and regulations of the school.

4. The Trustees to be a body corporate and politic, and required to report annually to the legislature, or regents of the University, a full statement of the condition of the institution in all its branches. No pupil is to be admitted into the school under the age of 14 years.

Mr. Sudam said it was not the intention of the committee to press the bill to a third reading at this session. They only desire that it be discussed; and that the report of the committee, and the views of those friendly to the measure, should be spread before the public, for the purpose of enabling the next legislature to judge whether it met the approbation of the citizens of the state. Four times the usual number of copies of the bill and report were ordered printed.—[*Rochester Daily Advertiser.*

A violent eruption of Mount Ætna took place on the 17th and 18th of November, which destroyed the town of Bronte, containing a population of 10,000 persons.

SCHOOL AGENT SOCIETY.

Cooperation of Schools.

The Convention of Teachers now in session at Andover, have entered promptly and warmly into measures to cooperate with the School Agent Society. The plan of a general cooperation of schools throughout the Union, by collecting and exchanging specimens of Natural History; journals of the weather, &c. was fully developed and unanimously approved. It was particularly proposed that each school should note the number of rainy and clear days, and occasionally give them to the public, and have them brought together in some journal in such a way that they could be compared. By this means, the citizens of New-Orleans, St. Louis, Columbus, (O.) Quebec, Boston, New-York, Charleston, (S. C.) and Savannah, could compare the state of the weather, from month to month and for the whole year.

Systematic Benevolence.

The Convention above referred to, discussed fully and warmly the importance of giving the cultivation of benevolence, or rather beneficence, a prominent place in the system of arrangements in schools. The proposal was made to have teachers request their pupils to make a collection every Monday morning, of at least one cent from each pupil, for some object of benevolence, or for some common object in school, such as a school library, apparatus, or collections of minerals, which would be useful and interesting to all.

And, acting up to their motto, DEEDS, AND NOT WORDS, several of the teachers engaged that their schools should contribute five dollars each, to employ a School Agent to travel through Greece, and collect children and parents together in the numerous villages, and by the aid of a globe, maps, diagrams, &c. to awaken mind, and institute measures to provide regular and well-conducted Lyceums or weekly schools for that intellectual but oppressed nation. They were encouraged to this measure by the information from a gentleman who had just returned from Greece, that a benevolent and well-educated Grecian could probably be employed as the agent for six months for one hundred dollars.

Ladies' Lyceums.

The best method of securing the influence and aid of ladies in the cause of education was one of the most interesting subjects brought before the Convention. On this subject too, the motto, deeds and not words was acted up to, and a committee of ladies was appointed at a meeting among themselves, to prepare a report on the subject, and in it to invite benevolent and intelligent ladies in all parts of the country to take some measures to promote the interests of their schools, the present season. The plan of Ladies' Lyceums, or associations, who should invite meetings of teachers, and visit their schools to encourage both teachers and pupils, was proposed and unanimously approved.

Lyceum Schools.

Several gentlemen at the Convention, from the west and south, entered very warmly into the plan of Lyceum Schools, which occupied considerable time, and excited much interest at the meetings. They expressed it as their decided opinion, that circuit or weekly schools might be rendered extensively useful to the community, and highly profitable to teachers who would establish them either at the South or West.—Schools of this kind, which have been carried on by Mr. Hall, of the Teachers' Seminary, and some of his assistants, fully prove the practicability and the great importance of the plan for New England.

It is a prominent object of the School Agent Society to carry this plan into effect, not only in all sections of this country, but in other parts of the world.

School Lyceums.

Several most interesting reports were made to the Convention of Juvenile Lyceums, connected with schools. They have been found in numerous instances, not only to be deeply interesting to the pupils, but have attracted large meetings of ladies and gentlemen, who have been entertained and instructed by their exhibitions.

As reports of these School Lyceums were made from several states, which had uniformly produced the happiest results, not only among children, but in the community generally, it is evident that they only need to be attempted, to secure the like results in every town and every school in the Union.

School Conventions.

Teachers' meetings, with parents and children, excited much attention at the Convention. Observing the good motto deeds and not words merely, on this subject too, the executive committee at the recommendation of the convention have procured six or eight agents to visit during the month of May, all the counties, if practicable, in New England and New York, for the purpose of attending county conventions of schools for their particular benefit during their summer operations. At these conventions, a few of the most important improvements in the modes of teaching are to be explained, and in such a way, that the teachers present may introduce them immediately into their schools. Some of the subjects proposed for the conventions are, the best mode of teaching the alphabet, spelling, reading, composition, geography, geomety, and geology; to be illustrated by apparatus and specimens.

For the purpose of fully realizing the objects of the Society, auxiliaries, in the form of town and county lyceums, have been contemplated; and they are to some extent already engaged in measures of cooperation. To these auxiliaries, the friends of Education generally, and especially the Corresponding Secretaries of the Society in the several States, are invited to direct their attention, and to communicate any thing of interest on the subject to

JOSIAH HOLBROOK, Boston,
First Cor. Sec. of Am. S. A. Soc.

Resolved, That it is expedient to request Conventions of Teachers, and the friends of Education, in each County in New-England, and in New-York, to be held during the months of May and June; and that well qualified Agents be appointed to visit each Convention.

S. R. HALL,
Chairman Executive Com.

METEOROLOGICAL DIARY, MARCH, 1833.

Observations taken at 8 A.M.; 2 & 6 P. M.

Date.	Av'ge.	Thm'er.			Winds.			Weather.
1	74	70	80	72	SW	"	"	Clr.—rn. & thun
2	45	40	52	44	NW	"	"	Clear.
3	46	40	52	46	NW	SW	"	Clear.
4	53	42	60	56	SW	"	"	Clear.
5	59	56	63	58	NE	"	"	Cloudy.
6	63	56	68	66	SW	"	"	Clear.
7	62	58	70	57	SE	"	NE	Cloudy.
8	57	56	58	48	NE	"	NW	Rain.
9	53	42	62	54	NW	"	"	Clear.
10	57	46	68	58	SW	"	NW	Clear.
11	65	60	72	62	SW	SE	"	Clear.
12	69	63	74	70	SE	"	"	Clear.
13	71	66	75	71	NW	SE	"	Cloudy.
14	58	58	60	56	NE	"	"	Cloudy.
15	65	54	72	68	NW	NE	SE	Cloudy.
16	61	58	66	60	NE	"	"	Cloudy.
17	61	58	64	60	NE	"	"	Cloudy.
18	62	59	64	63	SW	"	SE	Cloudy—rain.
19	64	62	66	64	SE	"	NE	Cloudy.
20	70	66	73	70	SE	SSE	SE	Cloudy.
21	67	70	66	66	SW	SE	"	Thunder & rain.
22	69	66	71	70	W	NW	SW	Clear.
23	67	63	71	66	NW	SE	"	Clear.
24	68	66	70	68	SSE	SE	SW	Thunder & rain.
25	65	60	68	66	SW	NW	SE	Clear.
26	66	62	69	66	NW	SE	"	Cloudy.
27	66	64	67	66	SW	SE	"	Cloudy.
28	64	65	64	62	SE	NE	"	Thunder & rain.
29	52	50	54	52	NW	"	"	Cloudy.
30	54	50	57	54	NNE	ENE	"	Cloudy.
31	57	52	60	58	NE	"	"	Cloudy & rain.

Remarks for March, 1833.

1. These observations have been taken three times a day, viz. at 3 A. M.—2 and 6 P. M.

2. Mean of three daily observations for the month, 62°; 3° warmer than February. Max. 74° on the 1st. Min. 45° on the 2d.

3. Ther. Ex. at 8 o'clock, A. M. Max. 70° on the 1st and 21st. Min. 40° on the 2d and 3d. Mean 57°.

4. Ther. Ex. at 2 o'clock, P. M. Max. 80° on the 1st. Min. 52° on the 2d and 3d. Mean 64°.

5. Ther. Ex. at 6 o'clock, P. M. Max. 72° on the 1st. Min. 44° on the 2d. Mean 61°.

6. There have been 7 rains during the month, viz. on the 1st, 8th, 18th, 21st, 24th, 28th and 31st. More rain has fallen this month than in February.

7. Winds have been N. N. W. 6 days; E. N. E. 7 days; S. S. E. 12 days; S. S. W. 6 days. The weather has been clear 11 days, variable 2, cloudy 18.

8. March has been mild and pleasant; very few high winds. The health of the city continues as last reported.

W. H. W.

Chatham Academy, Savannah, Geo.

Practical Advantages of Science.

The following illustration of the utility of science in the common occurrences of life, is from the Genesee Farmer:—'A penknife, by accident, dropped into a well 20 feet deep. A sunbeam from a mirror was directed to the bottom, which rendered the knife visible, and a magnet fastened to a pole brought it up.

BOOK OF NATURE.

COMETS.

'Has thou never seen the comet's flaming flight?'

Besides the planets and their satellites, there are other bodies called *Comets*, which revolve round the sun in very eccentric ellipses, and in all manner of directions. These comets in one part of their orbit, called the perihelion, approach very near the sun, and appear all in a blaze; this appearance, however, they gradually lose, as they fly off with inconceivable rapidity to the opposite part of their orbit, called by astronomers their aphelion; there they are totally divested of their luminous tail, and being at such an immense distance from the sun, it is concluded they must experience a degree of cold, of which we can have no adequate conception. There are a variety of opinions as to the number of comets belonging to our system; Riccioli enumerated 154; others assert that 450 had been seen previous to 1771: the tables of Berlin estimate them at 700, and some have even supposed that there are millions. And these bodies appear but seldom and their stay is so short, it is not surprising that so much ignorance should prevail respecting them. It is, however, now sufficiently ascertained, that these, like the planets, shine not by their own but by a reflected light, and were it not for the sun, these bodies, instead of alarming our fears by their glaring magnificence, would move unseen and unheeded by us; for however naturalists may have differed respecting the composition of their tails, it seems now to be pretty well understood, that they possess nothing fiery or combustible in them, and may with more propriety be likened to the mild radiance that proceeds across the street from the illuminated glass in an apothecary's window in a dark night, than to any thing of a baneful or pestilential nature.

There is one thing to be remarked with regard to the tails of comets, that they appear always in a direction averted from, or contrary to the sun, and this certainly, with the circumstance of the stars being visible through them, gives coloring to the supposition, that they are nothing more than merely a condensation of the solar rays by the refracting power of the comet and its atmosphere.

With regard to the purposes for which comets were created, 'all is doubt, uncertainty, and conjecture.' Some have supposed they are the means appointed by the Almighty for putting a period to the planetary world; others have imagined that comets in their several revolutions gradually approach the sun, till at last they fall into it, and become a supply of fuel to that luminary; and some of the learned world, Dr. Mayor remarks, are of opinion, that they are places of future punishment for tormenting the damned with eternal vicissitudes of heat and cold; 'but when, on the other hand, (as the doctor goes on,) we reflect on the infinite power and goodness of the Deity, the latter inclining, the former enabling him to make creatures to all states and circumstances; that matter exists only for the sake of intelligent beings: and that, wherever we find it, we always perceive it pregnant with life, or subservient to that purpose; when we consider the numberless species, the astonishing diversity of animals, in earth, air, water, and even on other animals; every blade of grass, every tender leaf, every natural fluid, swarming with life, and every one of these enjoying such gratifications as the nature and state of each require; when we further reflect, that some centuries ago, a great part of the earth was judged uninhabitable, till experience undeceived us; the torrid zone, on account of excessive heat; and both the frigid zones, on account of excessive cold; it seems highly probable that such numerous and large masses of durable matter as the comets, are not, however dissimilar to our earth, destitute of beings capable of contemplating with wonder, and acknowledging with gratitude, the wisdom, symmetry, and beauty of the creation, which is more plainly observed in their extensive tour through the heavens, than in our confined circuit—yet, however difficult it may be for us, circumstanced as we are, to discover their particular designation, this is an undoubted truth, that wherever the Deity exerts his power, there he also manifests his wisdom and goodness.

If, in addition to these judicious remarks of the learned doctor, we take it into consideration, that the vast rapidity of their movement when in their perihelion, or part of their orbit nighest the sun, and the comparatively slow progress they make as they recede from him, till their motion is so languid as to be scarcely perceptible at their aphelion, or farthest distance from him, may not suffer these bodies to undergo such an alternate extreme of heat and cold as would otherwise have been the case, the probability is still the greater that comets are inhabited, especially if we make a proper allowance for the powerful effect of such an atmosphere as they may be surrounded with, for attempering the sun's rays as they fall more directly or obliquely upon it. And we have an example of this in what we ourselves experience in winter, when our situation is nearer to the sun than it is in summer.

But whatever uses these eccentric bodies are of otherwise, the astonishing courses that the comets perform in empty space, suggest an idea of the vast distance between the sun and the nearest fixed stars, of whose attractions all the comets must keep clear, in order to return periodically and move round the sun, and, consequently, of the infinite greatness of that Being, who has stretched out the heavens like a curtain, and afforded such ample scope for all those numerous orbs. 'I cannot forbear reflecting,' says the author of the Guardian, 'on the insignificance of human art, when set in comparison with the designs of Providence. In the pursuit of this thought, I considered a comet, or, in the language of the vulgar, a *blazing star*, as a sky rocket discharged by a hand that is Almighty. What an amazing thought it is to consider this stupendous body traversing the immensity of the creation with such a rapidity, and at the same time wheeling about in that line which the Almighty had prescribed for it! How spacious must the universe be, that gives such bodies as these their full play without suffering the least disorder or confusion by it! What a glorious show are those beings entertained with, that can look into this great theatre of nature, and see myriads of such tremendous objects wandering through these immeasurable depths of ether, and running their appointed courses! Our eyes may hereafter be strong enough to command this magnificent prospect, and our understandings able to find out the several uses of these great parts of the universe; in the meantime, they are very proper objects for our imagination to contemplate, that we may form more extensive notions of infinite wisdom and power, and learn to think humbly of ourselves, and of the little works of human invention.'

The Seal—a pathetic story.

'About forty years ago a young seal was taken in Clew Bay, Ireland, and domesticated in the kitchen of a gentleman whose house was situated on the sea shore. It grew apace, became familiar with the servants, and attached to the house and family; its habits were innocent and gentle, it played with the children, and came at its master's call, and as the old man described him to me, was 'fond as a dog, and playful as a kitten.' Daily the seal went out to fish, and after providing for his own wants, frequently brought in a salmon or turbot to his master. His delight in summer was to bask in the sun, and in winter to lie before the fire, or if permitted creep into the large oven, which at that time formed the regular appendage of an Irish kitchen. For four years the seal had been thus domesticated, when, unfortunately, a disease, called in this country the *chippawn*—a kind of paralytic affection of the limbs, which generally ends fatally—attacked some black cattle belonging to the master of the house; some died, others became infected, and the customary cure produced by changing them to drier pastures failed. A wise woman was consulted; and the hag assured the credulous owner, that the mortality among his cows was occasioned by his retaining an unclean beast about his habitation—the harmless and amusing seal. It must be made way with directly, or the chippawn would continue, and her charms be unequal to avert the malady. The superstitious wretch consented to the hag's proposal; the seal was put on board a boat, carried out beyond Clare Island, and there committed to the deep, to manage for himself as he best could. The boat returned, the family retired to rest; and next morning the servant awakened her master to tell him that the seal was quietly sleeping in the oven. The poor animal overnight came back to his beloved home, crept through an open window, and took possession of his favorite resting place. Next morning another cow was reported to be unwell. The seal must now be finally removed; a Gallaway fishing boat was leaving Westport on her return home, and the master undertook to carry off the seal, and not put him overboard until he had gone leagues beyond Innis Boffin. It was done—a day and night passed; the second evening closed—the servant was raking the fire for the night, something scratched gently at the door, she opened it and in came the seal! Wearied with his long and unusual voyage, he testified by a peculiar cry, expressive of pleasure, his delight to find himself at home, then stretching himself before the glowing embers of the hearth he fell into a deep sleep. The master of the house was immediately apprized of this unexpected and unwelcome visit. In the exigency, the beldame was awakened and consulted; she averred that it was always unlucky to kill a seal, but suggested that the animal should be deprived of sight, and a third time carried out to sea. To this proposition the besotted wretch who owned the house consented, and the affectionate and confiding creature was cruelly robbed of sight on that hearth for which he had resigned his native element; next morning writhing in agony, the mutilated seal was embarked, taken outside Clare Island, and for the last time committed to the waves. A week passed over, and things became worse instead of better; the cattle of the truculent wretch died fast, and the infernal hag gave him the pleasurable tidings that her arts were useless, and that the destructive visitation upon his cattle exceeded her skill and cure. On the eighth night after the seal had been devoted to the Atlantic, it blew tremendously. In the pauses of the storm a wailing noise at times was faintly heard at the door; the servants, who slept in the kitchen, concluded that the *branshee* came to forewarn them of an approaching death, and buried their heads in the bed coverings. When morning broke, the door was opened; the seal was there lying dead upon the threshold!'

The skeleton of the once plump animal—for, poor beast, it perished from hunger, being incapacitated from blindness to procure customary food, was buried in a sand hill, and from that moment misfortunes followed the abettors and perpetrators of this inhuman deed. The detestable hag, who had denounced the inoffensive seal, was within a twelvemonth, hanged for murder. Every thing about this devoted house melted away—sheep rotted, cattle died, 'and blighted was the corn.' Of several children, none reached maturity, and the savage proprietor survived every thing he loved or cared for. He died blind and miserable. There is not a stone of that building standing upon another. The property has passed to a family of a different name; and the series of incessant calamity which pursued all concerned in this cruel deed is as romantic as true.

Black Hole of Calcutta.

The Indian army, in becoming possessed of Fort William, did not commit any outrage; but when the Nabob entered, accompanied by his General, Meer Jaffier, he sent for Mr. Howell, and burst into violent reproaches at his having attempted to defend the place against the thiefs of Bengal. He expressed also the most extreme dissatisfaction at finding in the treasury only the small sum of 50,000 rupees; yet, after three interviews, he dismissed him with assurances, on the word of a soldier, that no harm should be done to him. Mr. Howell returned to his companions, and found them surrounded by a strong guard, who led them into a veranda, or arched gallery, constructed to shelter the soldiers from the sun and rain, but which excluded the chambers behind it from light and air. Some quarters of the fort being on fire, they were involved in so thick a smoke as inspired them with an apprehension that a design was formed to suffocate them; but the guards were merely looking out for a proper place of confinement. They pitched upon a chamber employed as the common dungeon of the garrison, called the 'Black Hole;' it consisted of a space 18 feet square, with only two small windows barred with iron, opening into the close veranda, and scarcely admitting of a breath of air. Into this narrow receptacle the whole of the officers and troops, 146 in number, were compelled to enter, and on venturing to remonstrate, the commander ordered every one who should hesitate to be instantly cut down. Thus were they forcibly thrust into this fearful dungeon, into which the whole number could with difficulty be squeezed; the door was then fast barred from without. Their first impression, on finding themselves immured, was the utter impossibility of surviving one night, and the necessity of extricating themselves, at whatever cost. The Jemautders, or Indian guards, were walking before the window, and Mr. Howell, seeing one who bore on his face a more than usual mark of humanity, adjured him to procure for them a room in which they could breathe—assuring him next morning, a reward of 1000 rupees. The man went away, but returned saying, it was impossible. The prisoners, thinking the offer had been too low, tendered 2000 rupees. The man again went and returned, saying that the Nabob was asleep, and no one durst awake him. The lives of men were nothing in comparison to disturbing for a moment the slumbers of a tyrant. Mr. Howell has described in detail the horrors of that dreadful night, which are scarcely paralleled in the annals of human misery. Every moment added to their distress. All attempts to obtain relief by a change of posture, from the painful pressure to which it gave rise, only aggravated their sufferings. The air soon became pestilential, producing at every respiration a feeling of suffocation; the perspiration flowed in streams, and they were tormented with the most burning thirst, but fortunately, the stations at or near the windows, being decidedly the best, the most dreadful struggles were made to reach them. Many of the prisoners being common and foreign soldiers, exempt by this calamity from all subordination, made an intolerable pressure, and the sufferers, as they grew weaker, began to be squeezed or trampled to death. Loud cries being raised for 'water!' the humane jemautder pushed through the bars several skins filled with that liquid; but this produced only an increase of calamity, through the violent efforts made in order to obtain it. The soldiers without found a savage sport in witnessing these contests, and even brought lights to the window, in order to view them to greater advantage. About 11, the prisoners began to die fast, six of Mr. Howell's intimate friends expired at his feet, and were trampled upon by their survivors. Of those still alive, a great proportion were raving or delirious; some uttered incoherent prayers—others, the most frightful blasphemies. They endeavored, by furious invectives, to induce the guards to fire into the prison and end their miseries, but without effect. When day dawned, the few who had not expired, were, most of them, either raving or insensible; in this last state was Mr. Howell himself, when about six o'clock the Nabob awoke and inquired for him. On learning the events of the night, he merely sent to ascertain if the English chief yet lived, and being informed that there were appearances as if he might recover, gave orders to open the fatal door.

At that time, of the 146 who had been enclosed, there breathed only 23, Mr. Howell being revived by the fresh air, was immediately supported into the presence of the Nabob, who on his beginning the dreadful tale, ordered for him a seat and a draught of water, but showed no other mark of sympathy. He commenced a strict interrogatory about the supposed treasure, discrediting extremely the assertion of its non-existence. Being able, however, to learn nothing on this subject, he sent Mr. Howell, with three other gentlemen, prisoners to Muxadavad. In this voyage they suffered severely, their bodies being covered with boils, that had broken out in consequence of their confinement; to which, however, these eruptions were supposed to afford relief. The other survivors were liberated, while the dead bodies were, without any ceremony, thrown into a ditch. [*History of British India.*

QUESTIONS

ON THE LAST NUMBER OF THE LYCEUM.

Where is Stromboli?

What peculiarity distinguishes the eruptions of Stromboli?

From what place is Europe chiefly supplied with pumice stones?

Who has given the best account of the volcanic phenomena of Stromboli?

Of what did Spalanzani find the shore to the east and northeast of Stromboli composed?

Of what did M. Dolomieu suppose this sand to be composed? and what are the additional remarks of Spalanzani?

Can you give a synopsis of Spalanzani's account of his visit to Stromboli?

In what has America the advantage over England, as illustrated in the paper and flour mills in Dover?

What is the process of making paper, as practised at Dover?

What was the origin of the name of the church festival of Whitsuntide?

What is the prospect of establishing a National cabinet of minerals, and other specimens of natural and artificial productions?

Upon what system would the establishment of such a cabinet be easy?

What is the mean temperature of Albany?

From whom did Galvanism derive its name; and whose experiments led to its discovery?

What circumstances stimulated Galvani to investigate the principles of electricity in relation to its action on the muscles?

What did he find to be essential with regard to the metals used in this investigation?

Who particularly distinguished themselves by their labors on the same subject?

How is the Voltaic pile constructed?

Does the intensity and rapidity of the shock depend upon the number or size of the plates?

Explain the principles of the battery, and its effects.

Give some account of the history of Galvanism, and a synopsis of experiments.

What anecdote is related of Franklin, illustrative of true independence?

What is ascertained to be the mean quantity of rain which falls in a year?

Where is the quantity greatest?

Are there more rainy days at the equator, or near the poles? and what does this prove?

Are the ultimate materials of which vegetable substances are composed, many or few?

How is this ascertained?

Does the animal differ widely from the vegetable world with respect to the number of its ultimate materials?

Are the public schools in Philadelphia in a flourishing condition? and what new exertions have been made in their favor the last year?

What is the value of glass produced annually in Great Britain? and what number of workmen are employed?

What is the number of Societies of the nature of Lyceums in Boston, and what is their condition?

Has the Mechanic Apprentices' Lyceum improved since its secession from its parent? and in what way?